



FIGURE 1-1 SITE LOCATION

**RIO TINTO
LEGACY
MANAGEMENT**

**Rio Tinto Legacy
Management**
4700 Daybreak Parkway
South Jordan, Utah 84095

2251 Armour Road Site
North Kansas City, Missouri

Scale: Not To scale

Date: 03/06/2017
Drawn By: RVO
Checked By: GP
File Number:

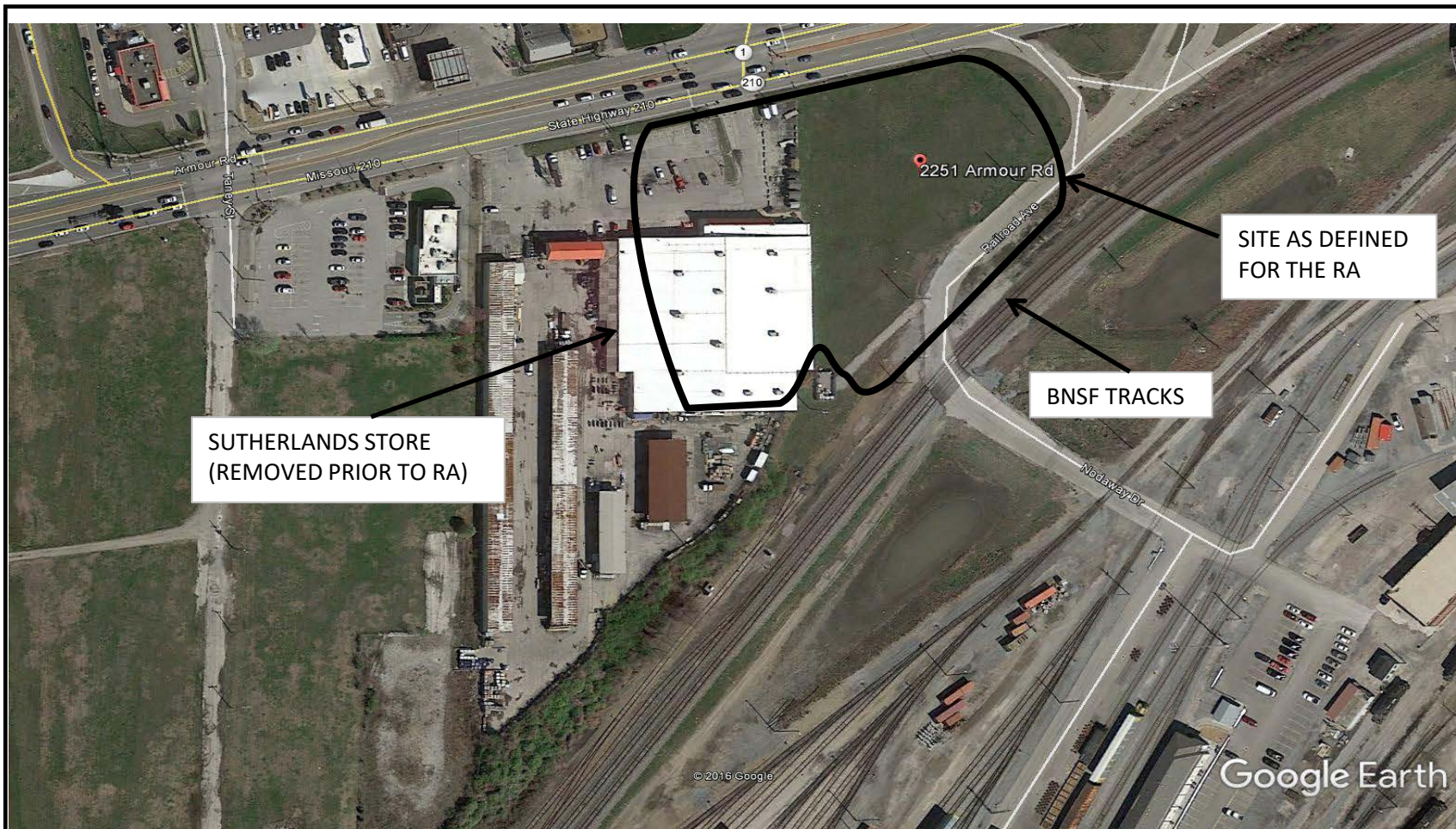


FIGURE 1-2 REMOVAL ACTION SITE DIAGRAM

**RIO TINTO
LEGACY
MANAGEMENT**

**Rio Tinto Legacy
Management**

**4700 Daybreak Parkway
South Jordan, Utah 84095**

**2251 Armour Road Site
North Kansas City, Missouri**

Scale: Not To scale

Date: 03/06/2017
Drawn By: RVO
Checked By: GP
File Number:

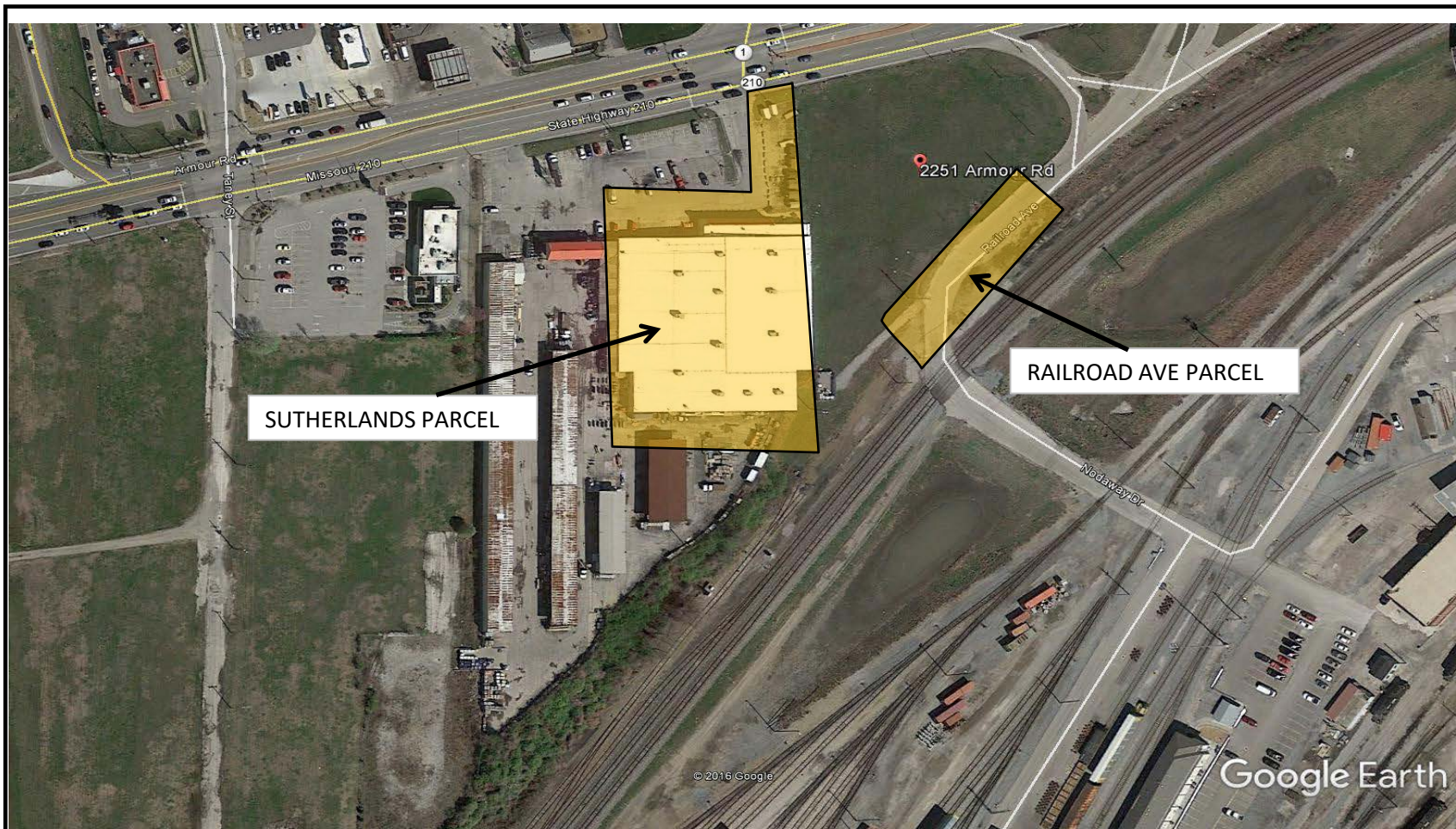


FIGURE 1-3 REMOVAL ACTION PARCELS

**RIO TINTO
LEGACY
MANAGEMENT**

**Rio Tinto Legacy
Management**

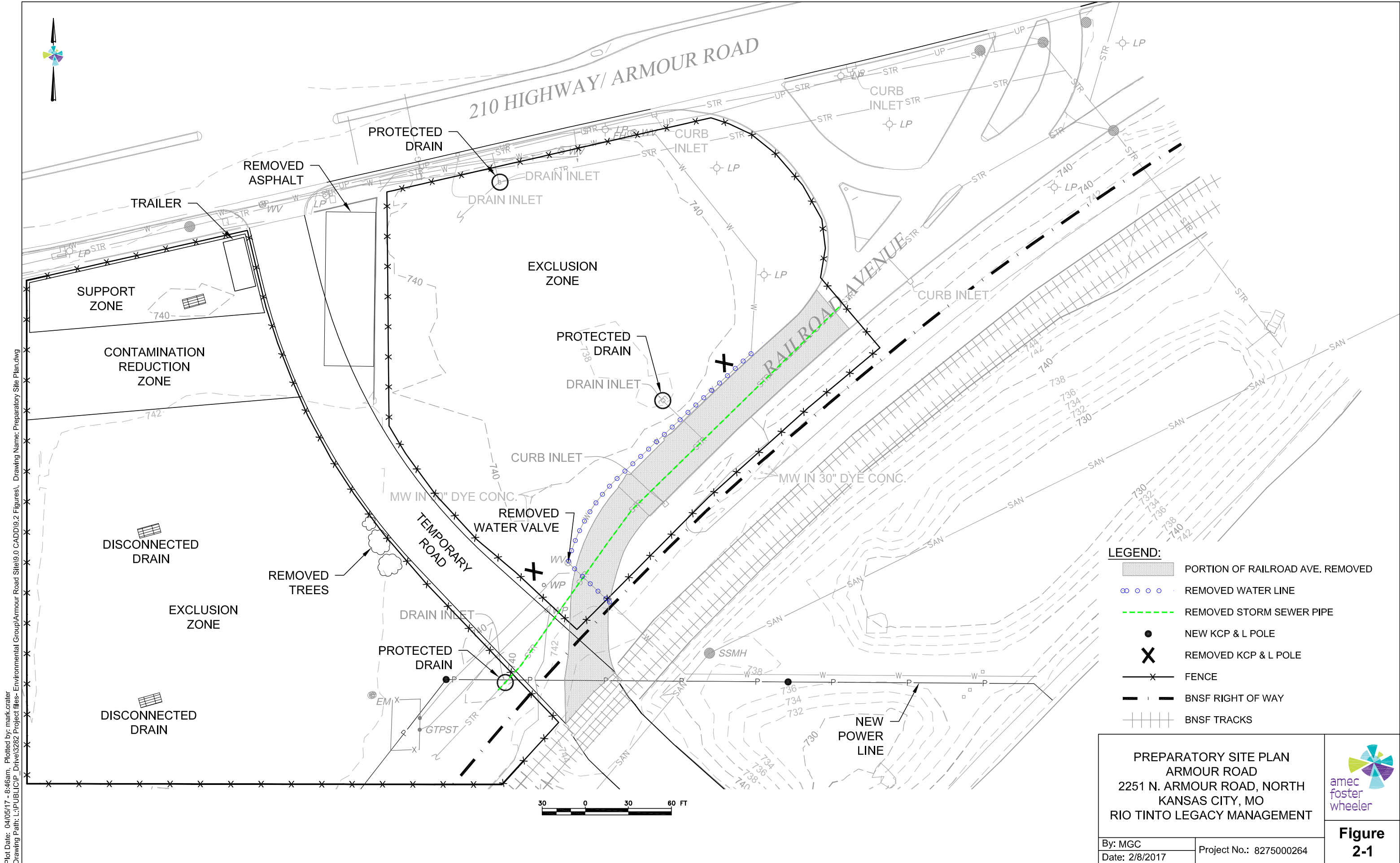
4700 Daybreak Parkway

South Jordan, Utah 84095

**2251 Armour Road Site
North Kansas City, Missouri**

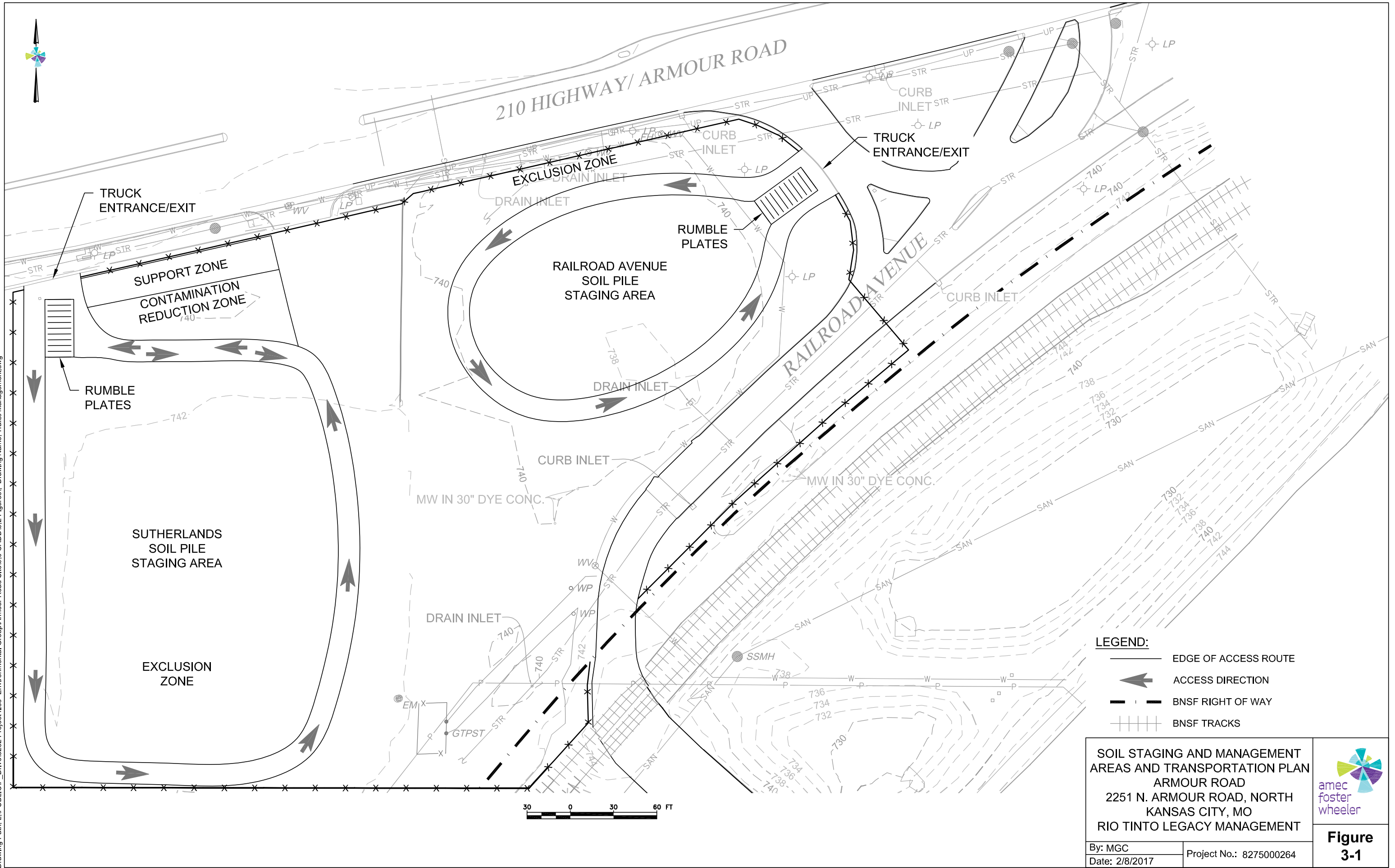
Scale: Not To scale

Date: 02/09/2017
Drawn By: RVO
Checked By: GP
File Number:



Plot Date: 04/05/17 - 8:46am, Plotted by: mark.crater
Drawing Path: L:\PUBL\CI\Drive\3282 Project files- Environmental Group\Armour Road Site\9.0 CADD\9.2 Figures\ Drawing Name: Preparatory Site Plan.dwg

Plot Date: 04/05/17 - 8:47am, Plotted by: mark.crater
Drawing Path: L:\PUBLIC\CP Drive\3282 Project files- Environmental Group\Armour Road Site\9.0 CADD\9.2 Figures\ Drawing Name: Traffic Management.dwg



By: MGC
Date: 2/8/2017

Project No.: 8275000264

XRF TO LAB ALL DATA 676 DATA POINTS

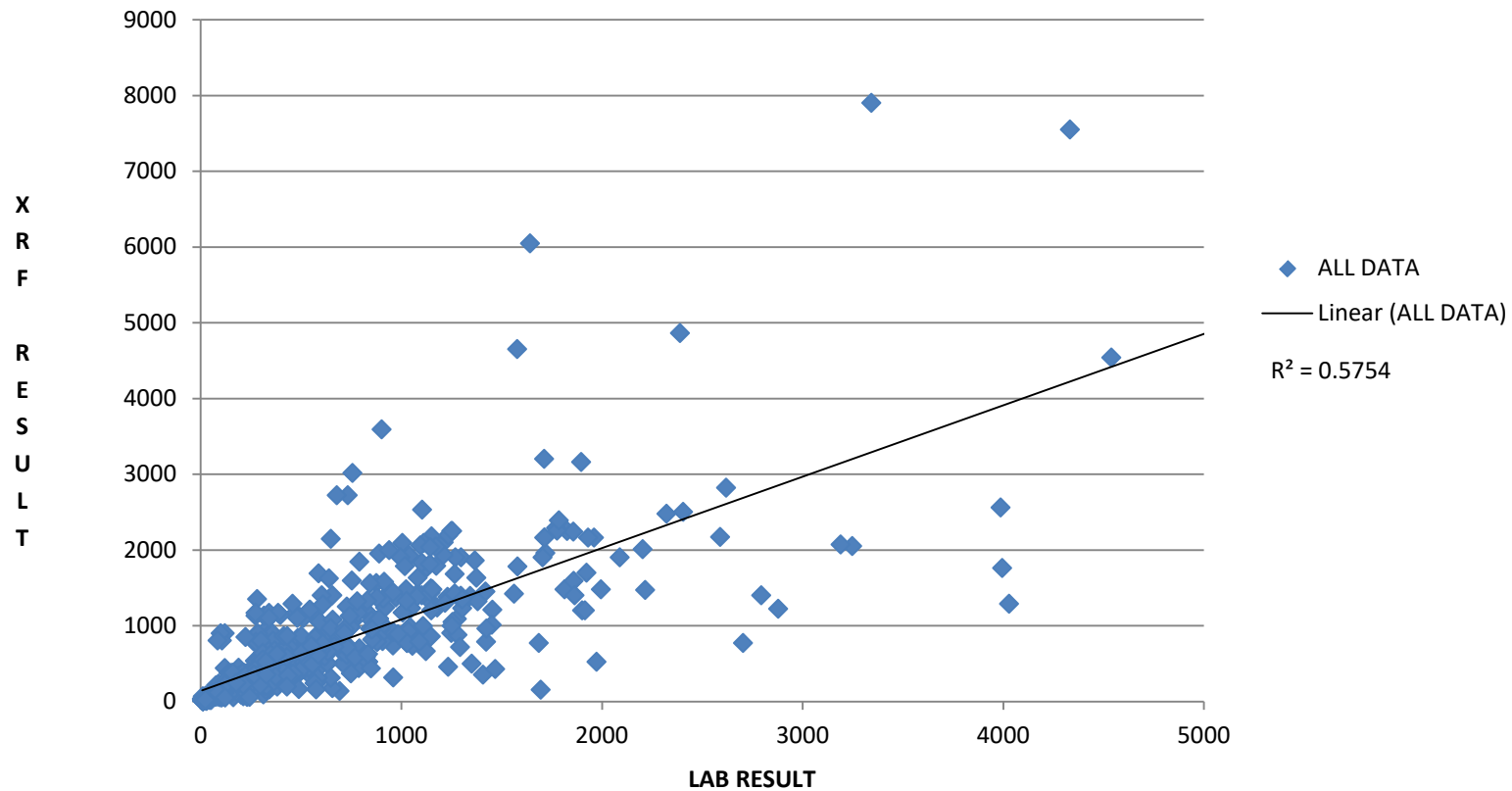


FIGURE 3-2 XRF to LAB REGRESSION ANALYSIS - ALL DATA

**RIO TINTO
LEGACY
MANAGEMENT**

**Rio Tinto Legacy
Management
4700 Daybreak Parkway
South Jordan, Utah 84095**

**2251 Armour Road Site
North Kansas City, Missouri**

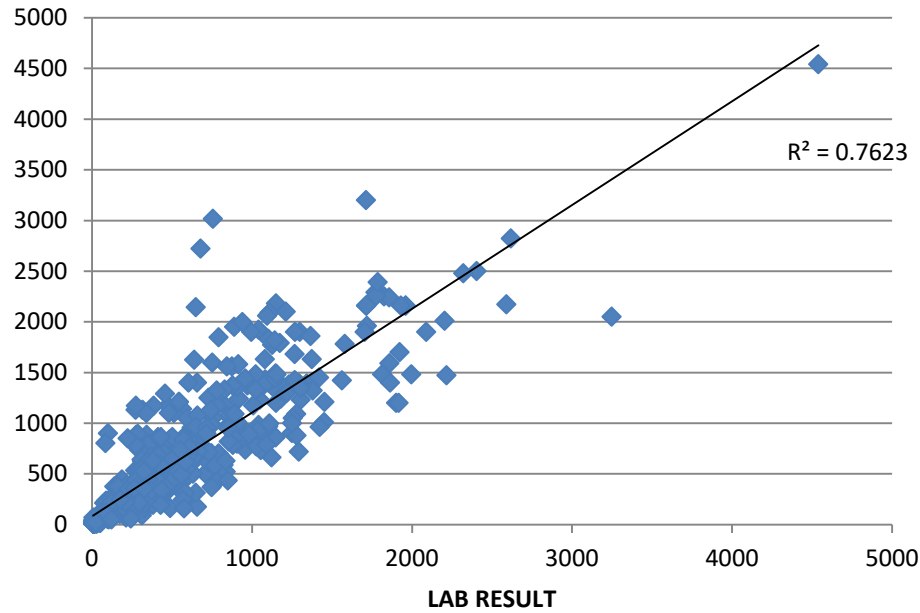
Scale: Not To scale

Date: 02/0819/2017
Drawn By: RVO
Checked By: GP
File Number:

XRF TO LAB NO OUTLIERS 632 DATA POINTS

X
R
F

R
E
S
U
L
T



◆ NO OUTLIERS

— Linear (NO OUTLIERS)

93.5% of data retained

FIGURE 3-3 XRF to LAB REGRESSION ANALYSIS - NO OUTLIERS

RIO TINTO
LEGACY
MANAGEMENT

Rio Tinto Legacy
Management

4700 Daybreak Parkway

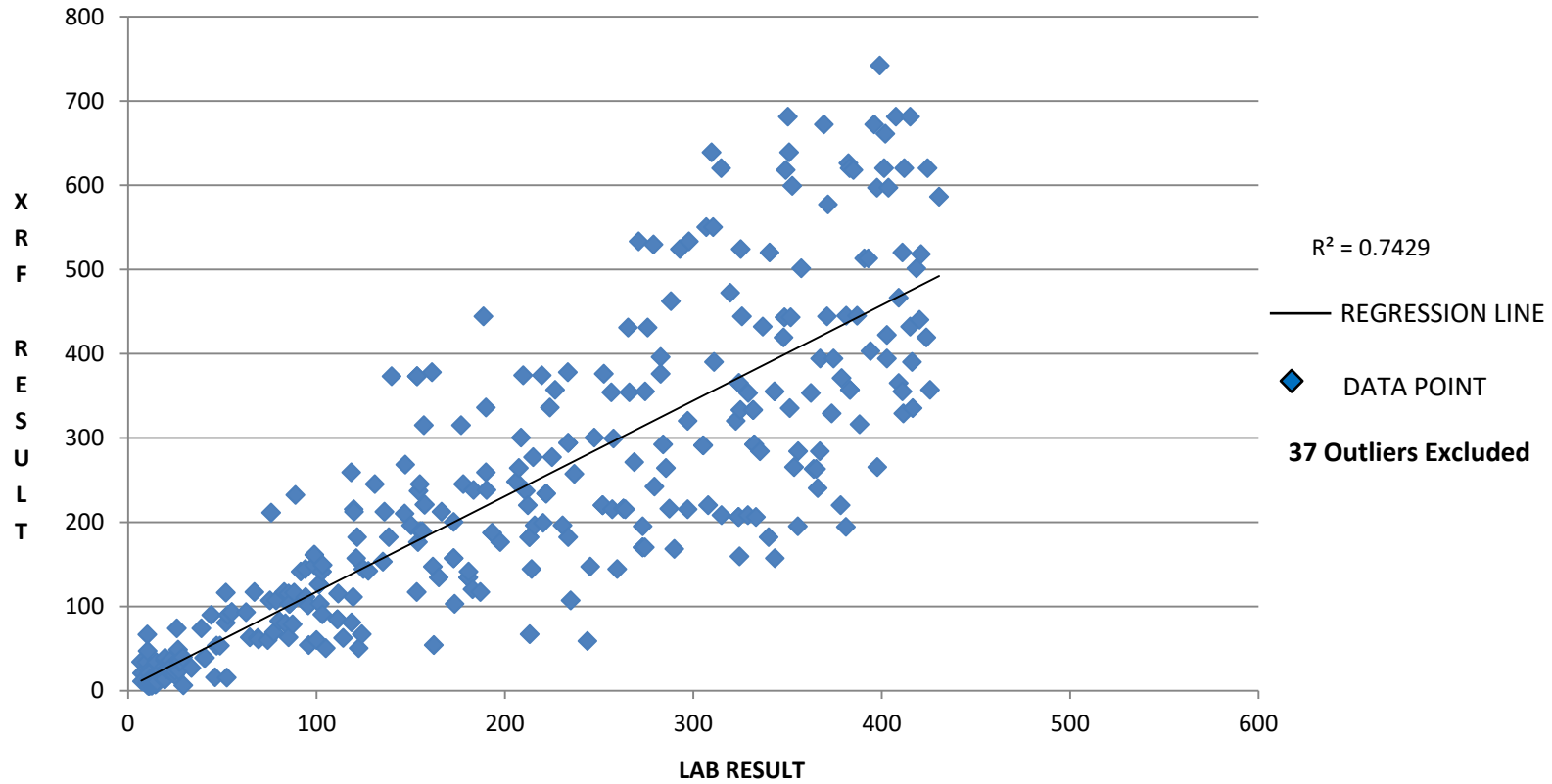
South Jordan, Utah 84095

2251 Armour Road Site
North Kansas City, Missouri

Scale: Not To scale

Date: 02/08/19/2017
Drawn By: RVO
Checked By: GP
File Number:

XRF TO LAB XRF <500 **421 DATA POINTS**



**FIGURE 3-4 XRF to LAB REGRESSION ANALYSIS -
XRF < 500 mg/kg**

**RIO TINTO
LEGACY
MANAGEMENT**

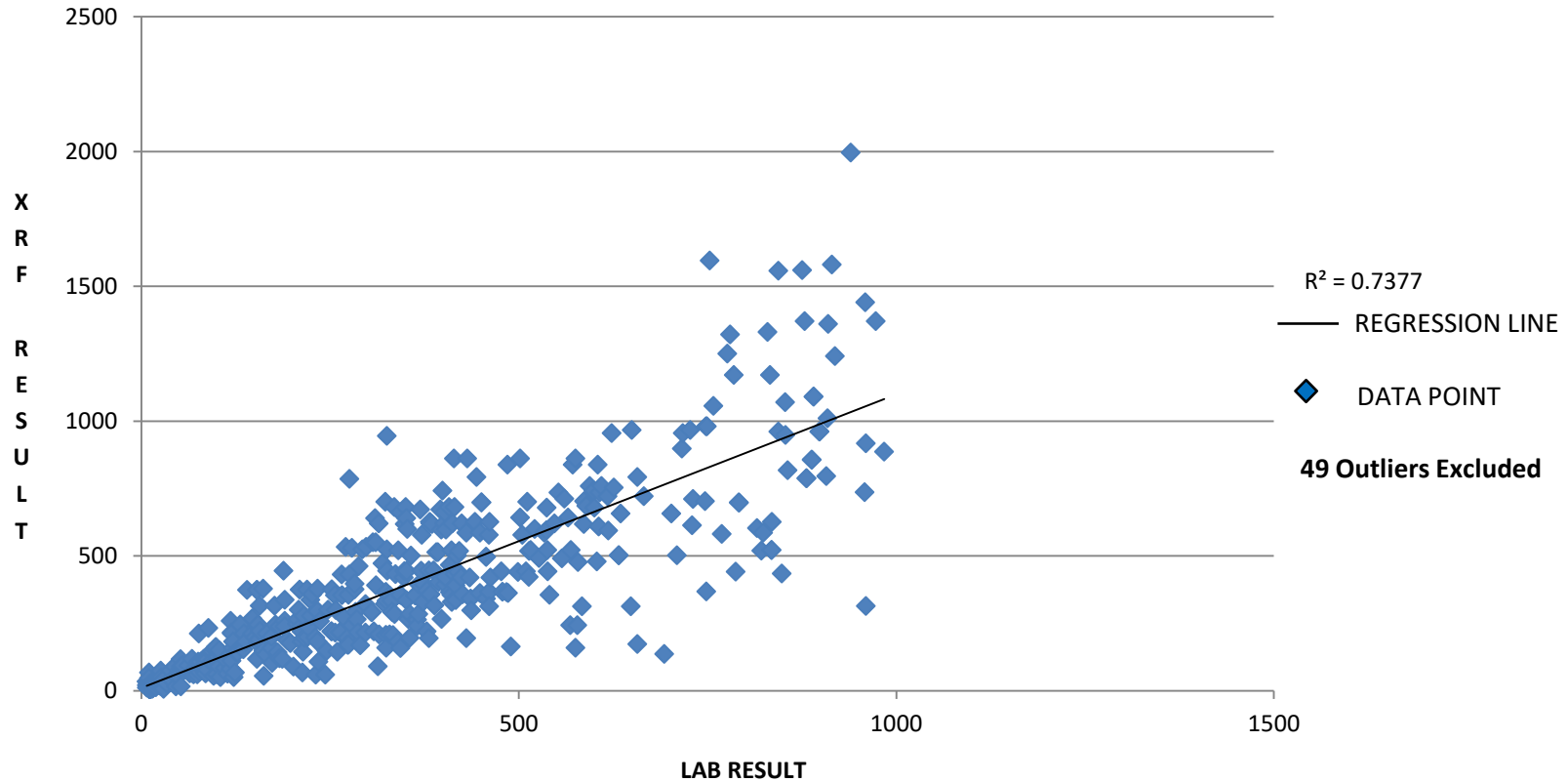
Rio Tinto Legacy
Management
4700 Daybreak Parkway
South Jordan, Utah 84095

2251 Armour Road Site
North Kansas City, Missouri

Scale: Not To scale

Date: 02/08/2017
Drawn By: RVO
Checked By: GP
File Number:

XRF TO LAB XRF <1,000 mg/kg **504 DATA POINTS**



**FIGURE 3-5 XRF to LAB REGRESSION ANALYSIS -
XRF <1000 mg/kg**

**RIO TINTO
LEGACY
MANAGEMENT**

**Rio Tinto Legacy
Management**

4700 Daybreak Parkway

South Jordan, Utah 84095

2251 Armour Road Site
North Kansas City, Missouri

Scale: Not To scale

Date: 02/0819/2017
Drawn By: RVO
Checked By: GP
File Number:

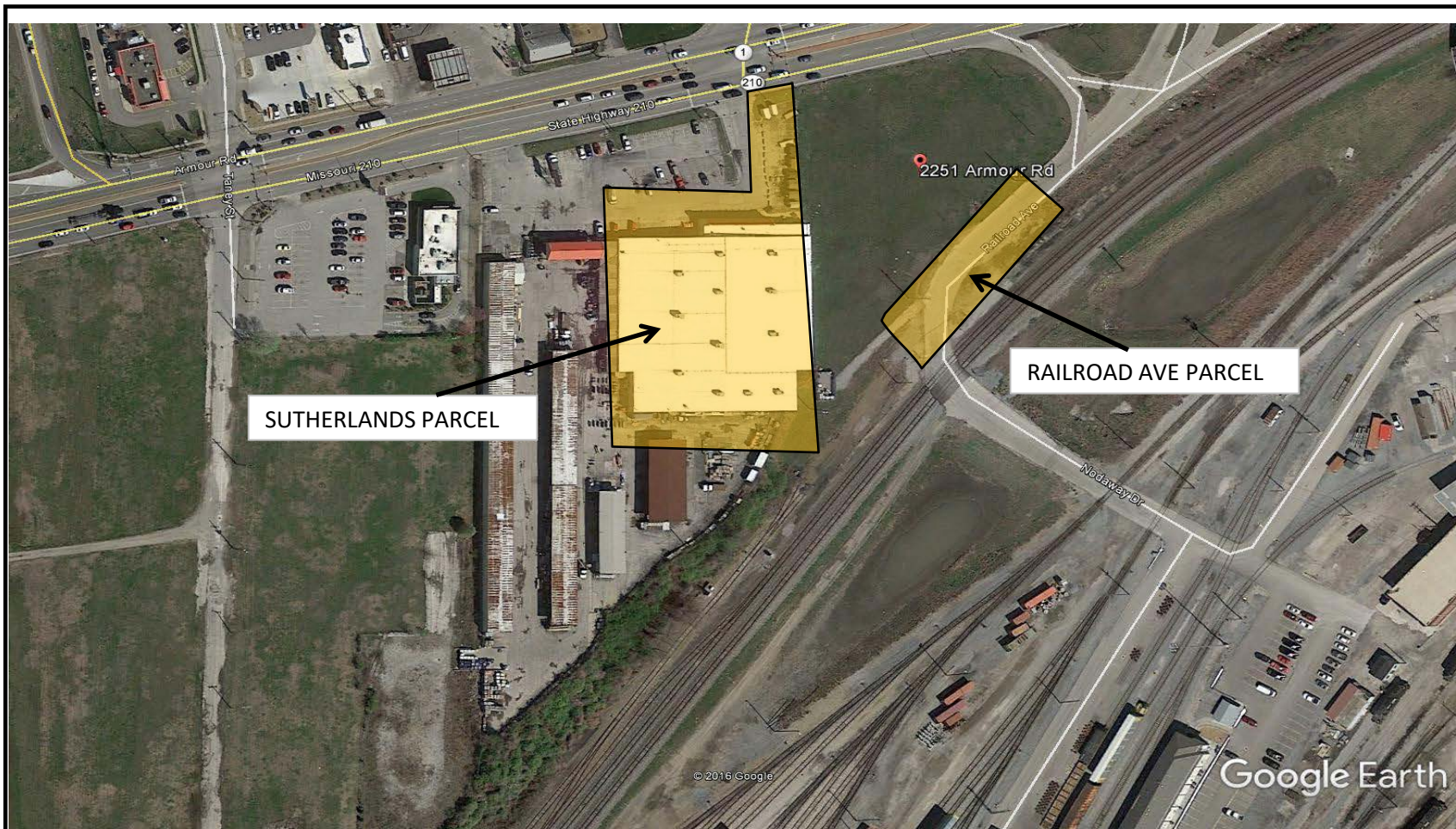


FIGURE 3-6 REMOVAL ACTION PARCELS

**RIO TINTO
LEGACY
MANAGEMENT**

**Rio Tinto Legacy
Management**

**4700 Daybreak Parkway
South Jordan, Utah 84095**

**2251 Armour Road Site
North Kansas City, Missouri**

Scale: Not To scale

Date: 02/09/2017
Drawn By: RVO
Checked By: GP
File Number:

Plot Date: 04/04/17 - 11:25am, Plotted by: mark.crater
Drawing Path: L:\PUBL\CI\ Drive\3282 Project files- Environmental Group\Armour Road Site\9.0 CADD\9.2 Figures\ Drawing Name: Railroad Removal Action.dwg



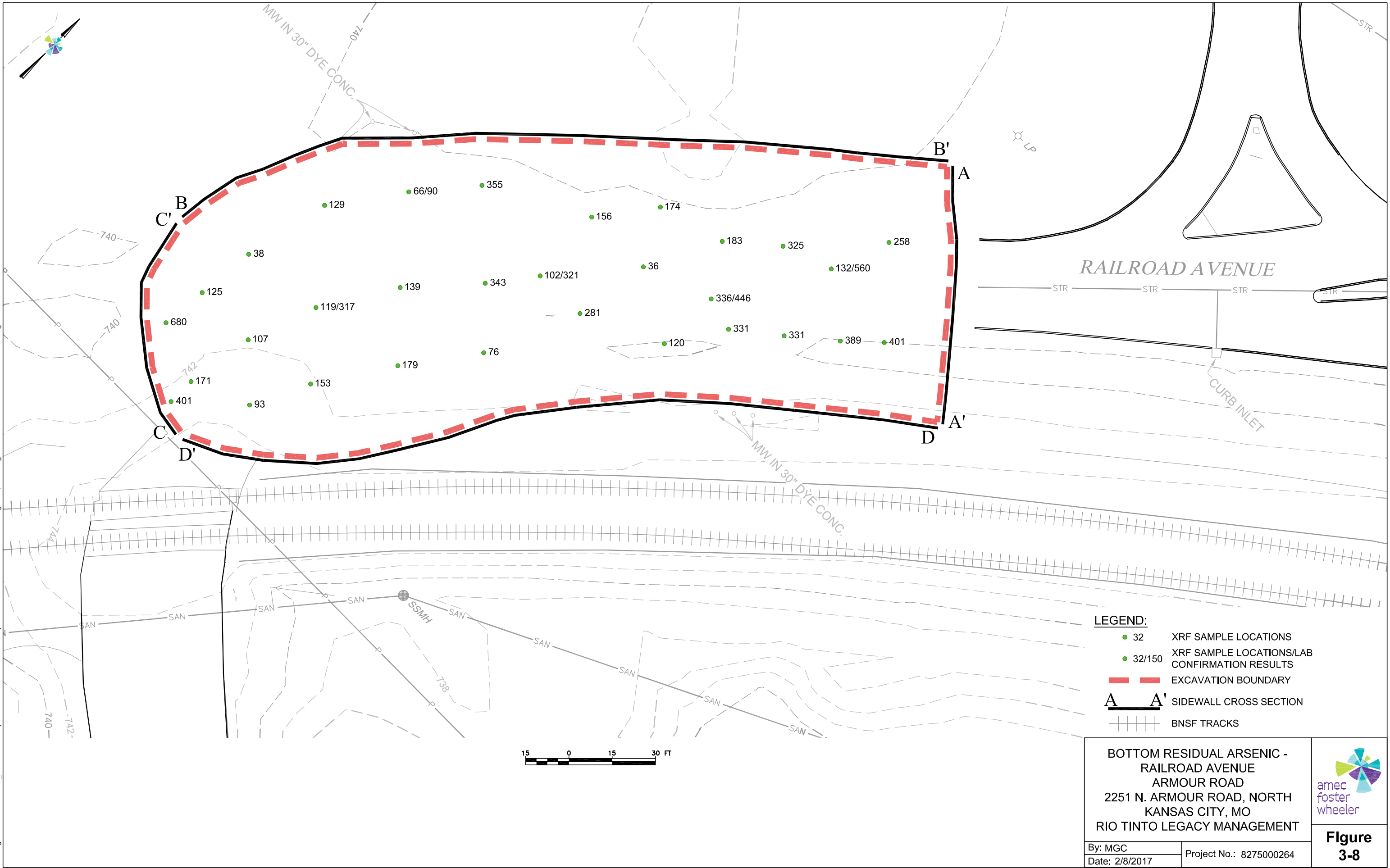
- LEGEND:**
- ENDING EXCAVATION BOUNDARY
 - DESIGNED EXCAVATION BOUNDARY
 - BNSF TRACKS

REMOVAL ACTION EXCAVATION LAYOUT - RAILROAD AVENUE ARMOUR ROAD 2251 N. ARMOUR ROAD, NORTH KANSAS CITY, MO RIO TINTO LEGACY MANAGEMENT	
By: MGC	Project No.: 8275000264
Date: 2/8/2017	

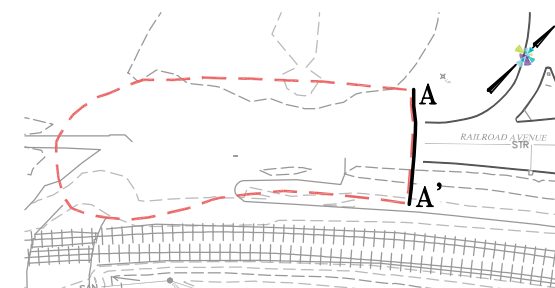
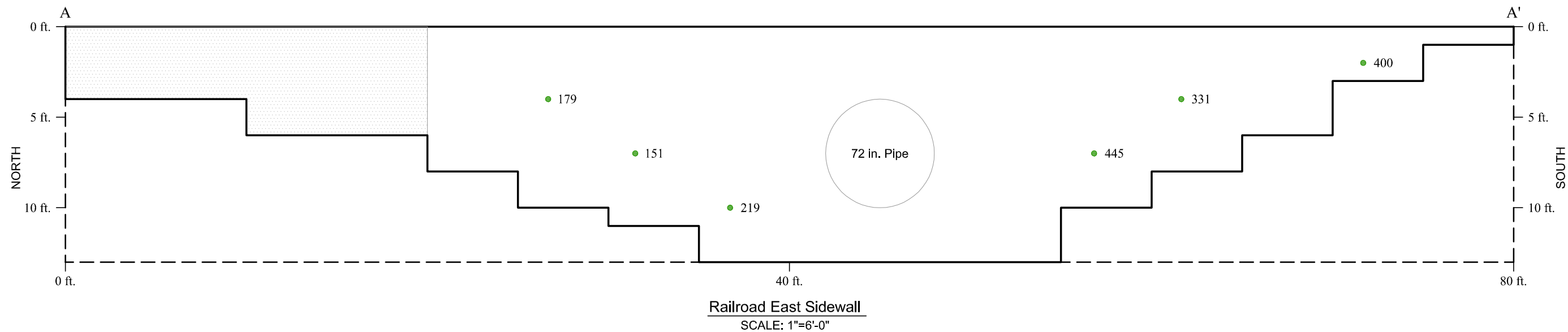
amec
foster
wheeler

Figure
3-7

Plot Date: 04/04/17 - 11:31am, Plotted by: mark.crater
Drawing Path: L:\PUBL\CI\ Drive\3282 Project files- Environmental Group\Armour Road Site\9.0 CADD\9.2 Figures\ Drawing Name: Railroad Excavation Site Plan.dwg



Plot Date: 04/04/17 - 12:12pm, Plotted by: mark.crater
Drawing Path: L:\PUBL\ICP_Drive\3282 Project files- Environmental Group\Armour Road Site\9.0 CADD\9.2 Figures\ Drawing Name: Railroad Excavation Sidewall Sections.dwg



Sidewall Location Map
SCALE: NTS

LEGEND:

- 32 XRF SAMPLE LOCATIONS
- CLEAN BACKFILL EXPOSED FROM THE 2006 REMOVAL ACTION
- APPROXIMATE EXCAVATION BOUNDARY

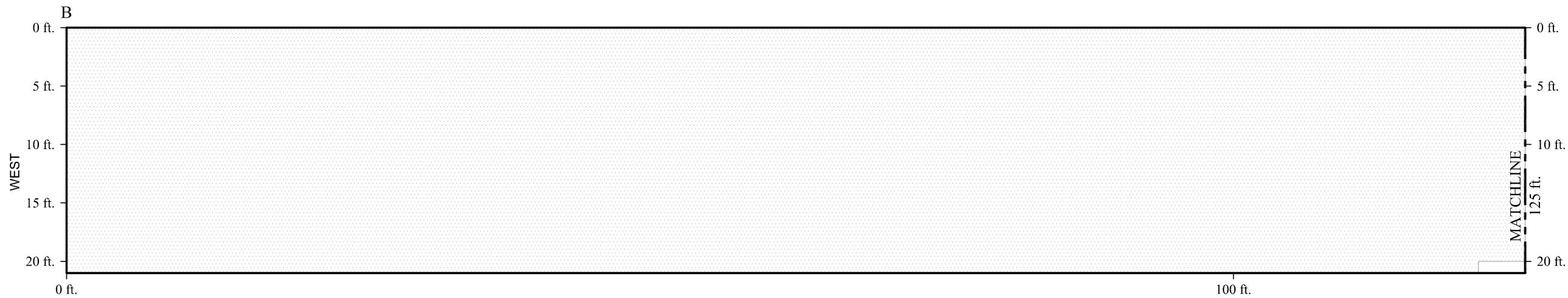
EAST SIDEWALL RESIDUAL ARSENIC
- RAILROAD AVENUE
ARMOUR ROAD
2251 N. ARMOUR ROAD, NORTH
KANSAS CITY, MO
RIO TINTO LEGACY MANAGEMENT

By: MGC
Date: 2/8/2017
Project No.: 8275000264

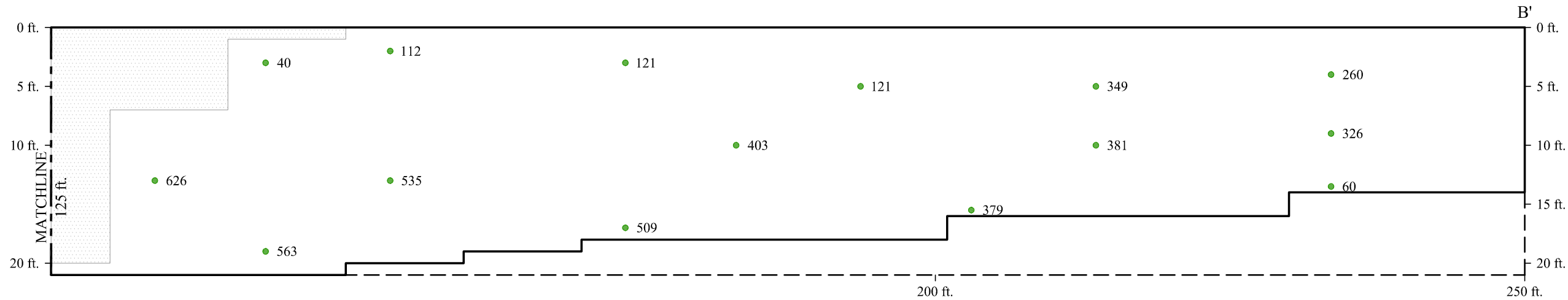


Figure 3-9

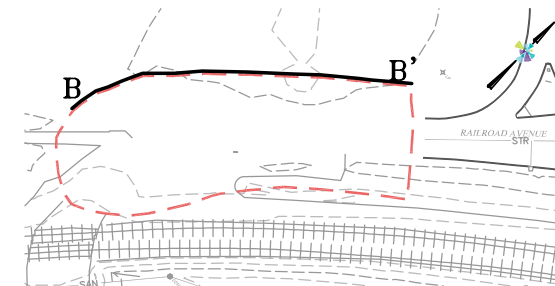
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Drawing Path: L:\PUBL\ICP_Drive\3282 Project files- Environmental Group\Armour Road Site\9.0 CADD\9.2 Figures\ Drawing Name: Railroad Excavation Sidewall Sections.dwg



Railroad North Sidewall
SCALE: 1"=10'-0"



Railroad North Sidewall (Cont.)
SCALE: 1"=10'-0"



Sidewall Location Map
SCALE: NTS

LEGEND:

- 32 XRF SAMPLE LOCATIONS
- CLEAN BACKFILL EXPOSED FROM THE 2006 REMOVAL ACTION
- APPROXIMATE EXCAVATION BOUNDARY

NORTH SIDEWALL RESIDUAL
ARSENIC - RAILROAD AVENUE
ARMOUR ROAD
2251 N. ARMOUR ROAD, NORTH
KANSAS CITY, MO
RIO TINTO LEGACY MANAGEMENT

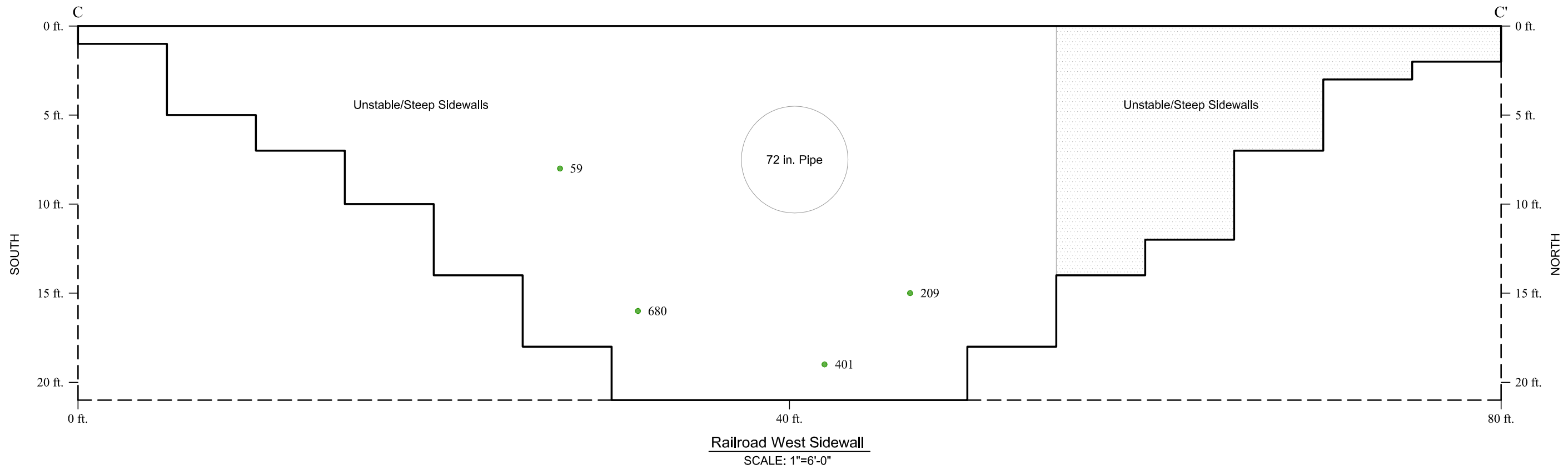
By: MGC
Date: 2/8/2017

Project No.: 8275000264



**Figure
3-10**

Plot Date: 04/05/17 - 9:00am, Plotted by: mark.crater
Drawing Path: L:\PUBL\ICP_Drive\3282 Project files- Environmental Group\Armour Road Site\9.0 CADD\9.2 Figures\ Drawing Name: Railroad Excavation Sidewall Sections.dwg



Sidewall Location Map
SCALE: NTS

LEGEND:

- 32 XRF SAMPLE LOCATIONS
- CLEAN BACKFILL EXPOSED FROM THE 2006 REMOVAL ACTION
- APPROXIMATE EXCAVATION BOUNDARY

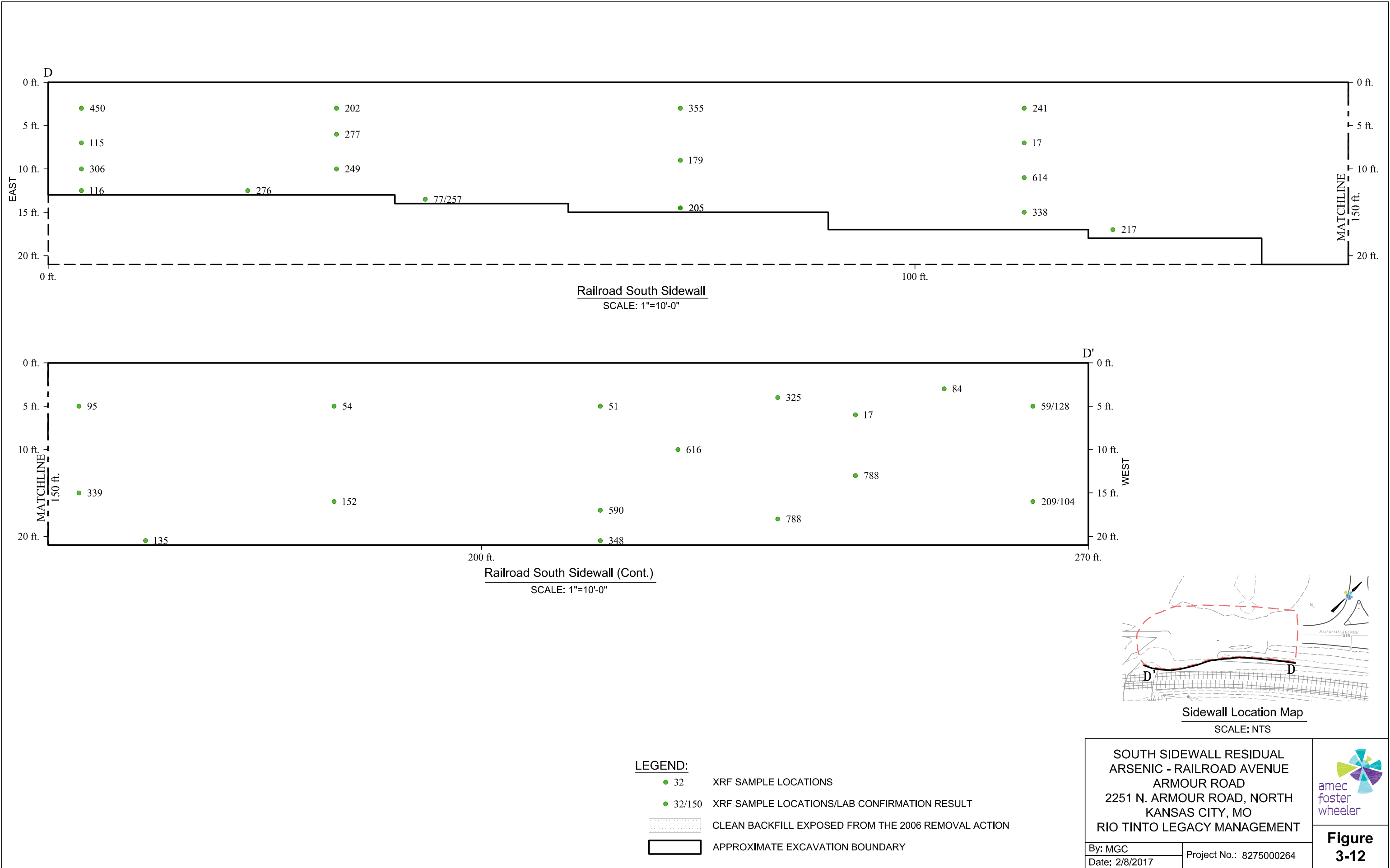
WEST SIDEWALL RESIDUAL ARSENIC
- RAILROAD AVENUE
ARMOUR ROAD
2251 N. ARMOUR ROAD, NORTH
KANSAS CITY, MO
RIO TINTO LEGACY MANAGEMENT

By: MGC
Date: 2/8/2017
Project No.: 8275000264

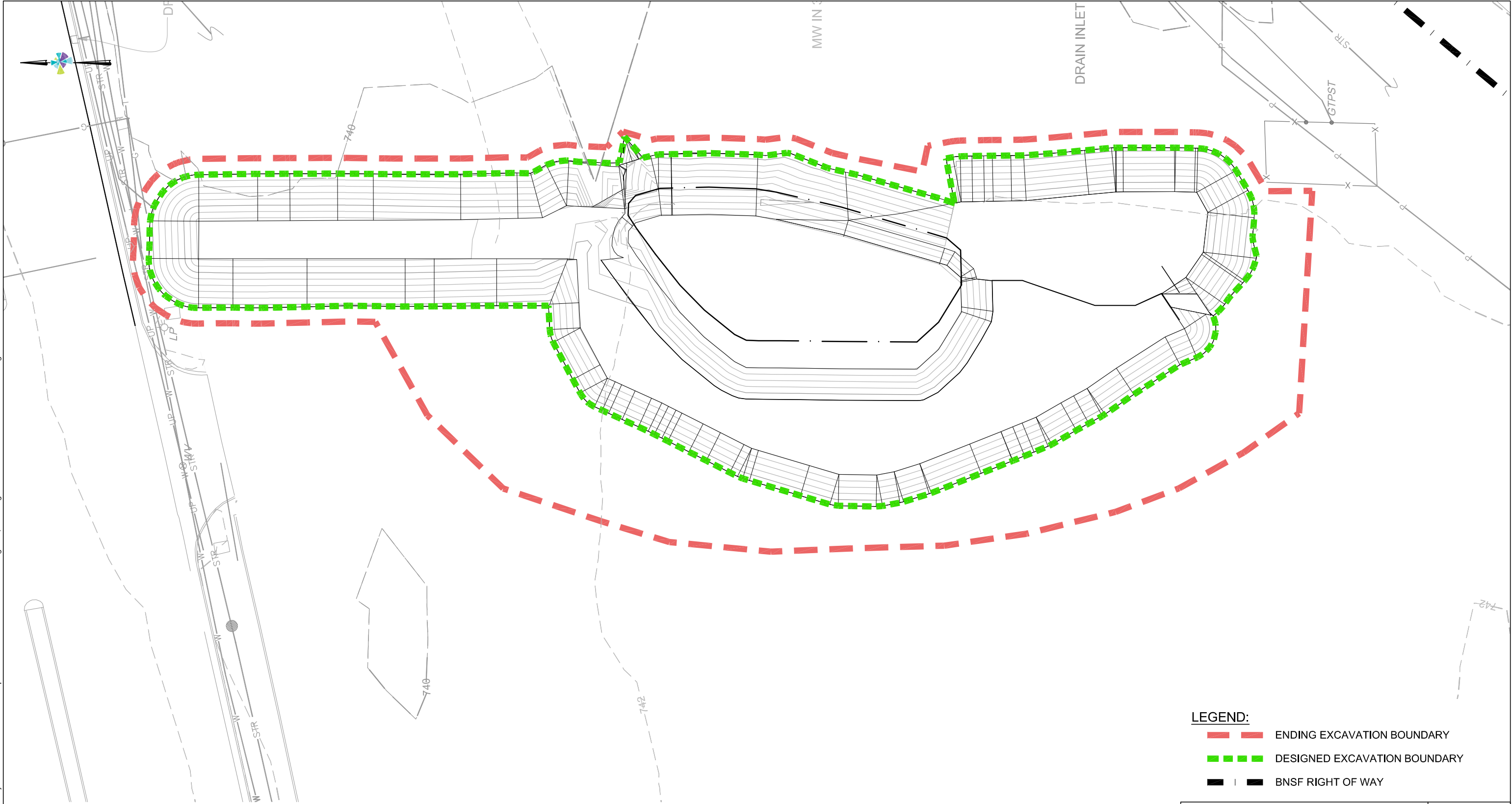


**Figure
3-11**

Plot Date: 04/05/17 - 9:00am, Plotted by: mark.crater
Drawing Path: L:\PUBL\ICP_Drive\3282 Project files- Environmental Group\Armour Road Site\9.0 CADD\9.2 Figures\ Drawing Name: Railroad Excavation Sidewall Sections.dwg



Plot Date: 04/04/17 - 1:07pm, Plotted by: mark.crater
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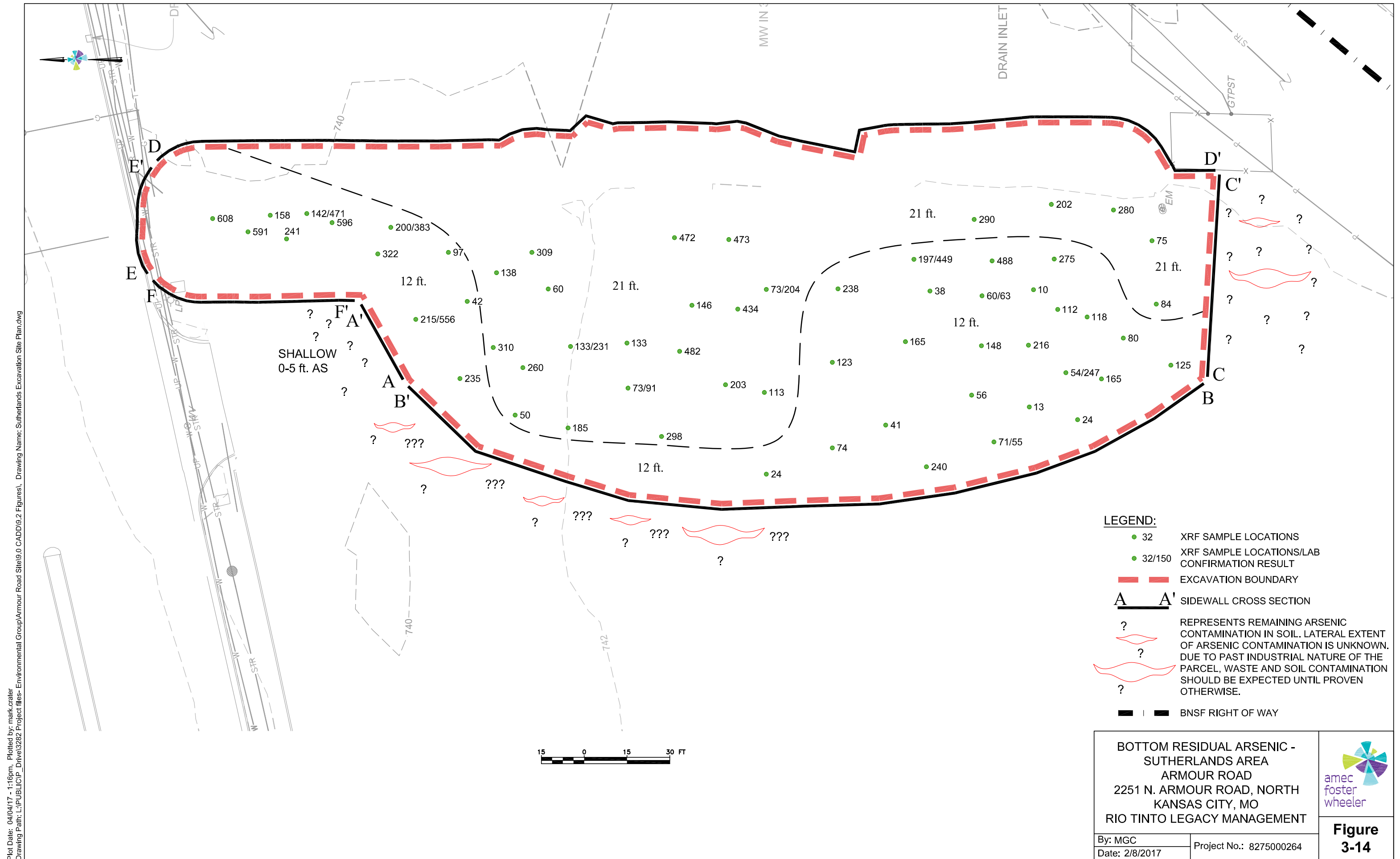
- LEGEND:**
- ENDING EXCAVATION BOUNDARY
 - DESIGNED EXCAVATION BOUNDARY
 - BNSF RIGHT OF WAY

REMOVAL ACTION EXCAVATION
LAYOUT - SUTHERLANDS AREA
ARMOUR ROAD
2251 N. ARMOUR ROAD, NORTH
KANSAS CITY, MO
RIO TINTO LEGACY MANAGEMENT

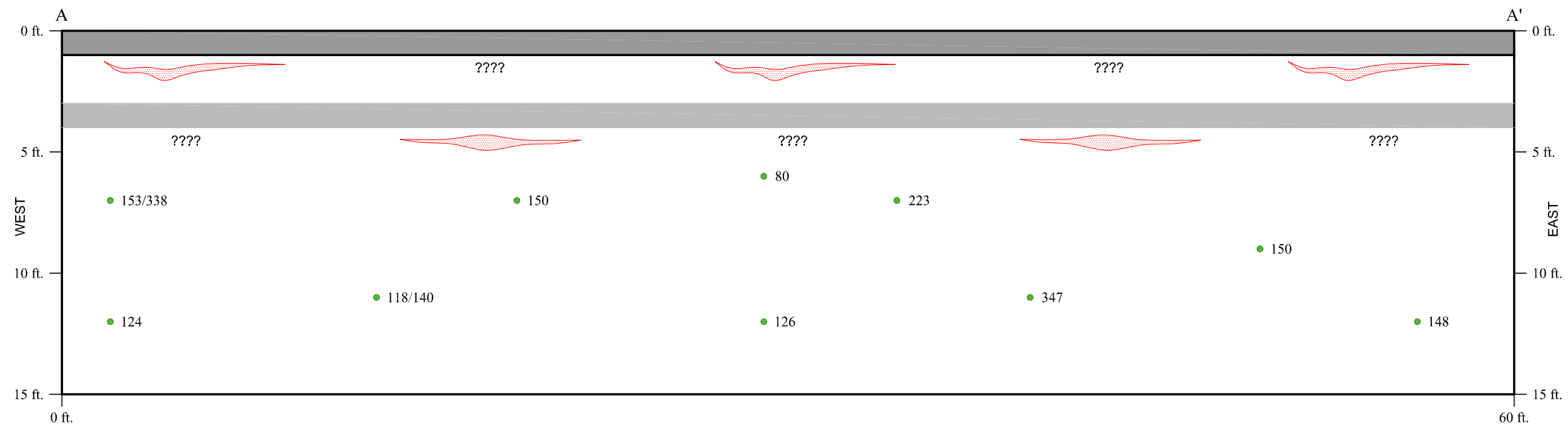
By: MGC	Project No.: 8275000264
Date: 2/8/2017	

amec
foster
wheeler

Figure
3-13

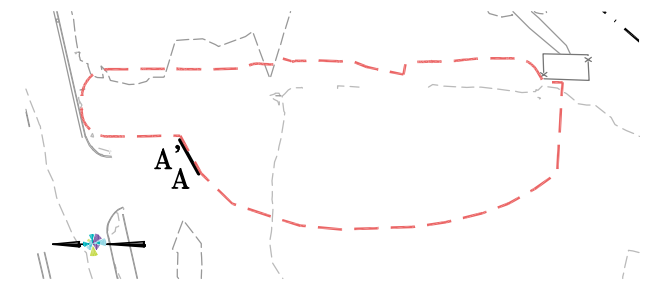


Plot Date: 04/04/17 - 1:21pm, Plotted by: mark.crater
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LEGEND:

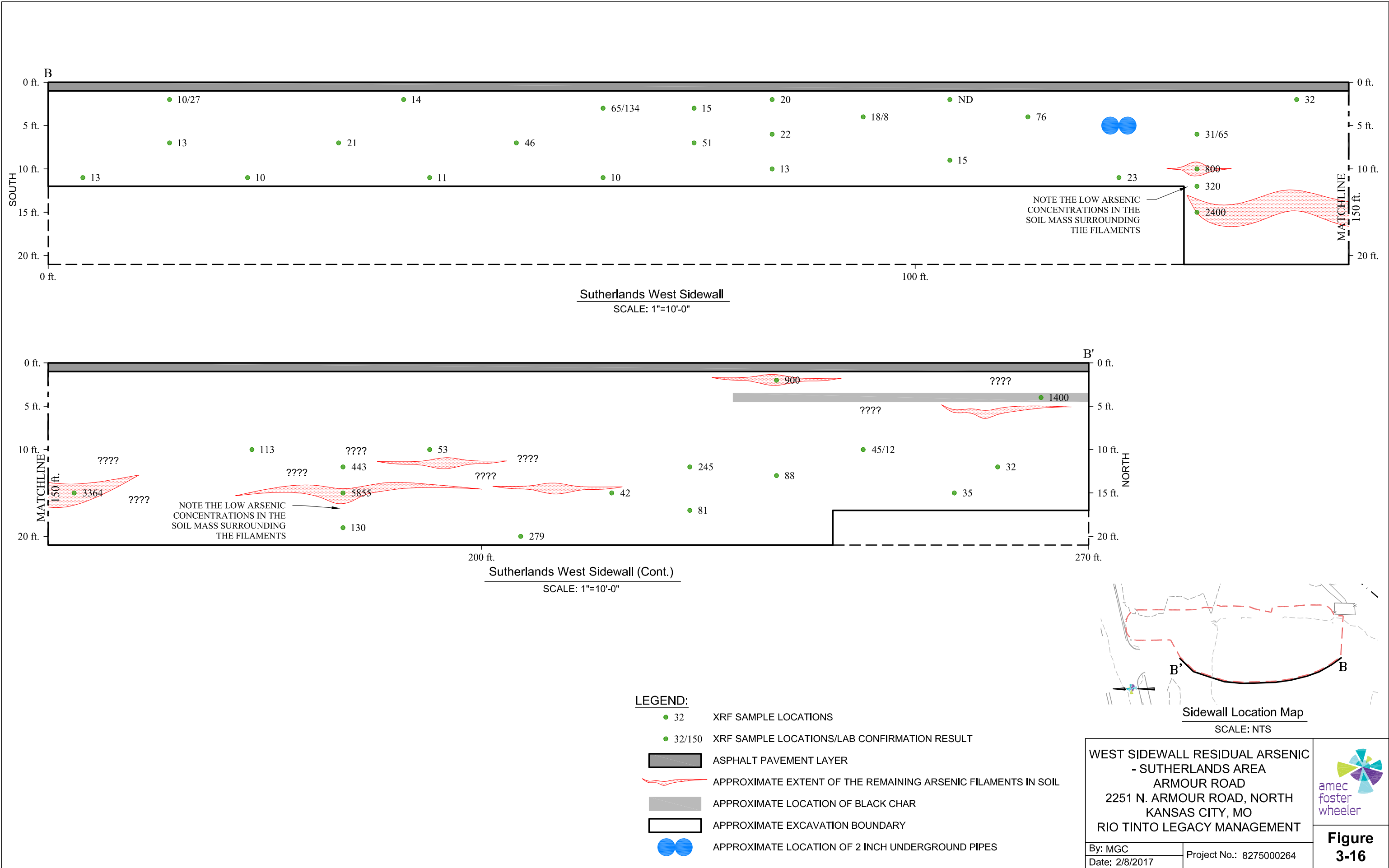
- 32 XRF SAMPLE LOCATIONS
- 32/150 XRF SAMPLE LOCATIONS/LAB CONFIRMATION RESULT
- ASPHALT PAVEMENT LAYER
- ~ APPROXIMATE EXTENT OF THE REMAINING ARSENIC FILAMENTS IN SOIL
- APPROXIMATE LOCATION OF BLACK CHAR
- APPROXIMATE EXCAVATION BOUNDARY



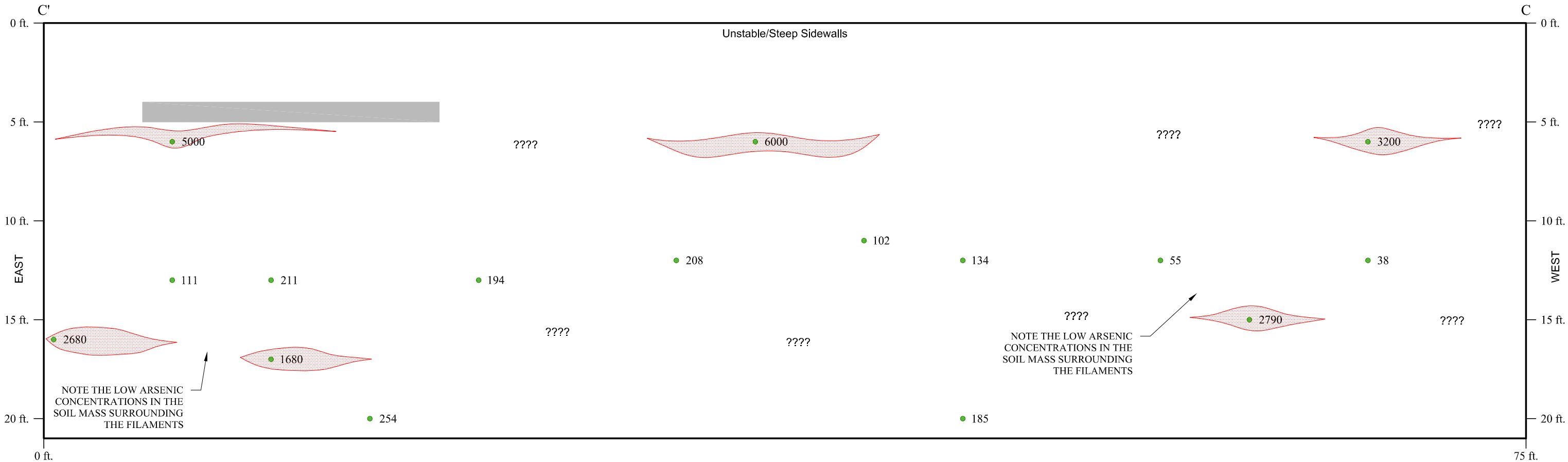
NORTH SIDEWALL RESIDUAL ARSENIC - SUTHERLANDS AREA ARMOUR ROAD 2251 N. ARMOUR ROAD, NORTH KANSAS CITY, MO RIO TINTO LEGACY MANAGEMENT	
By: MGC	Project No.: 8275000264
Date: 2/8/2017	



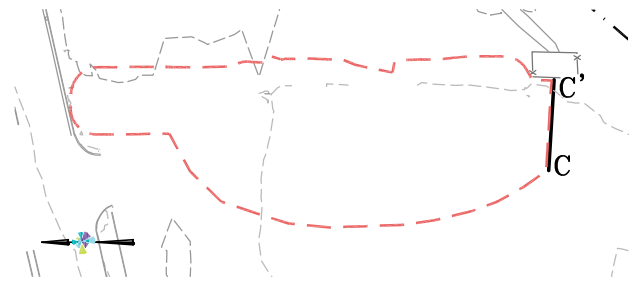
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Drawing Path: L:\PUBL\ICP_Drive\3282 Project files- Environmental Group\Armour Road Site\9.0 CADD\9.2 Figures\ Drawing Name: Sutherlands Excavation Sidewall Sections.dwg



Plot Date: 04/04/17 - 1:22pm, Plotted by: mark.crater
Drawing Path: L:\PUBL\ICP_Drive\3282 Project files- Environmental Group\Armour Road Site\9.0 CADD\9.2 Figures\ Sutherland Excavation Sidewall Sections.dwg



Sutherlands South Sidewall
SCALE: 1"=5'-0"



Sidewall Location Map
SCALE: NTS

LEGEND:

- 32 XRF SAMPLE LOCATIONS
- APPROXIMATE EXTENT OF THE REMAINING ARSENIC FILAMENTS IN SOIL
- APPROXIMATE LOCATION OF BLACK CHAR
- APPROXIMATE EXCAVATION BOUNDARY

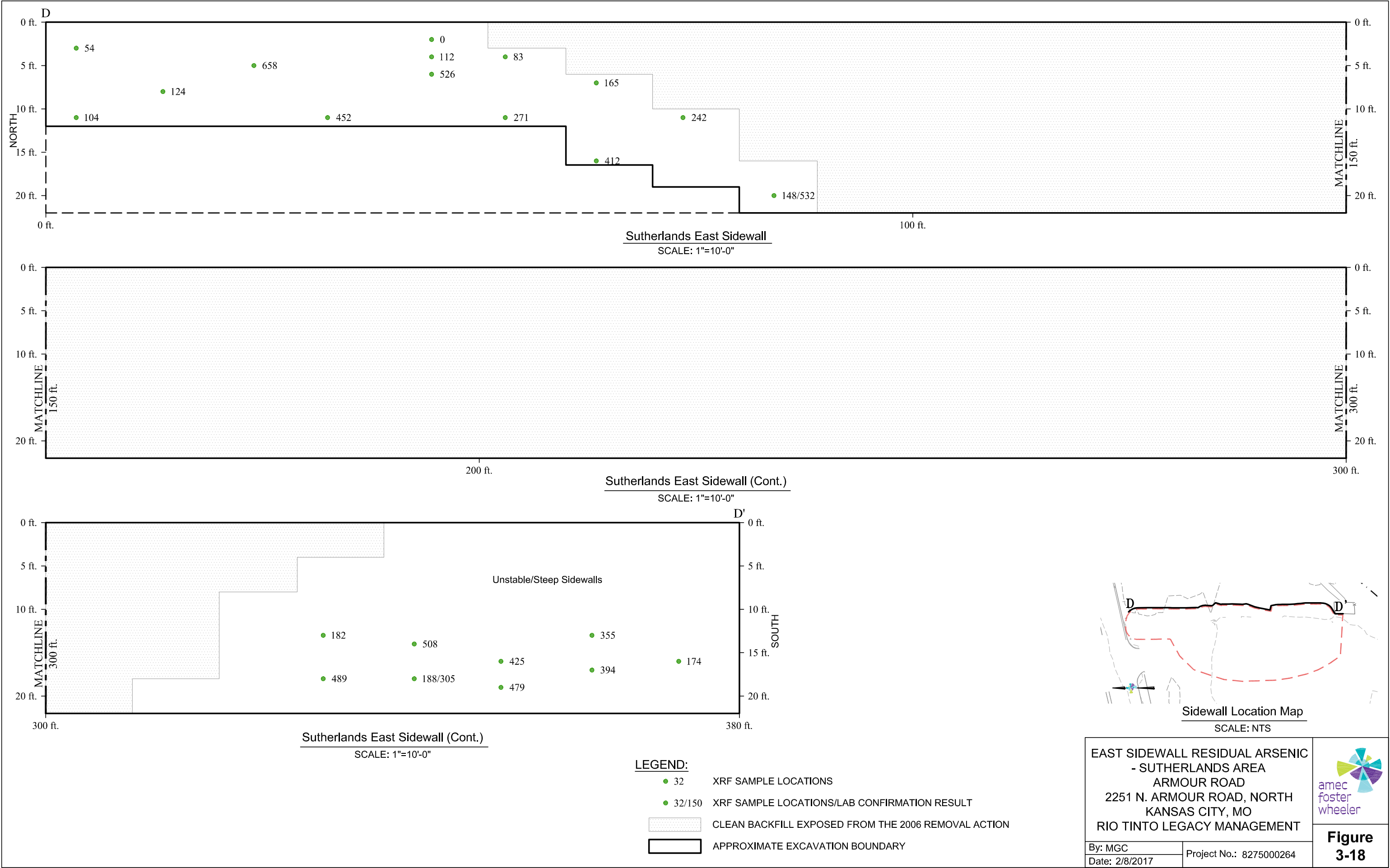
SOUTH SIDEWALL RESIDUAL
ARSENIC - SUTHERLANDS AREA
ARMOUR ROAD
2251 N. ARMOUR ROAD, NORTH
KANSAS CITY, MO
RIO TINTO LEGACY MANAGEMENT

By: MGC
Date: 2/8/2017
Project No.: 8275000264

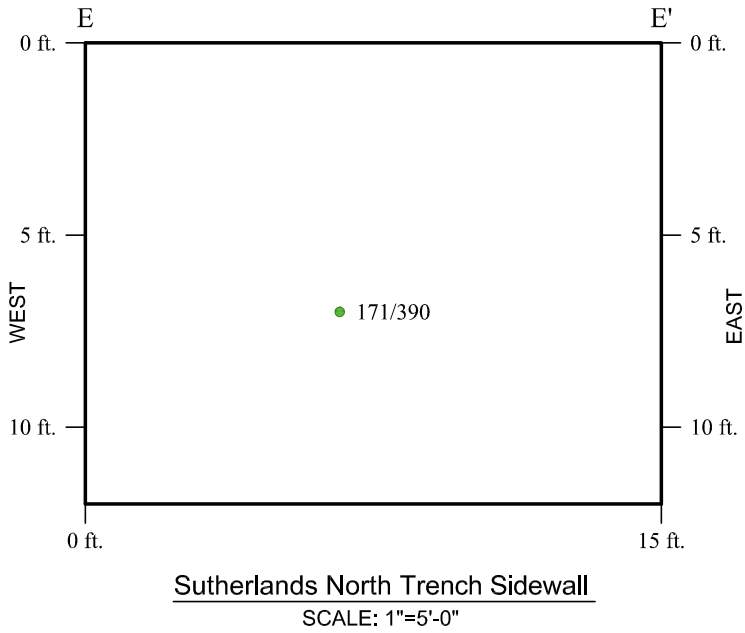


**Figure
3-17**

Plot Date: 04/04/17 - 1:23pm, Plotted by: mark.crater
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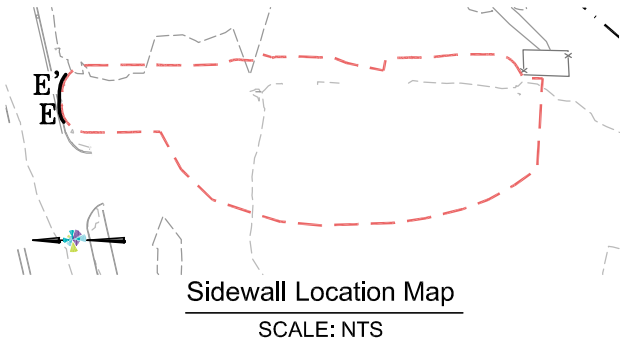


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Drawing Path: L:\PUBL\ICP_Drive\3282 Project files- Environmental Group\Armour Road Site\9.0 CADD\9.2 Figures\ Drawing Name: Sutherlands Excavation Sidewall Sections.dwg



LEGEND:

- 32/150 XRF SAMPLE LOCATIONS/LAB CONFIRMATION RESULT
- APPROXIMATE EXCAVATION BOUNDARY



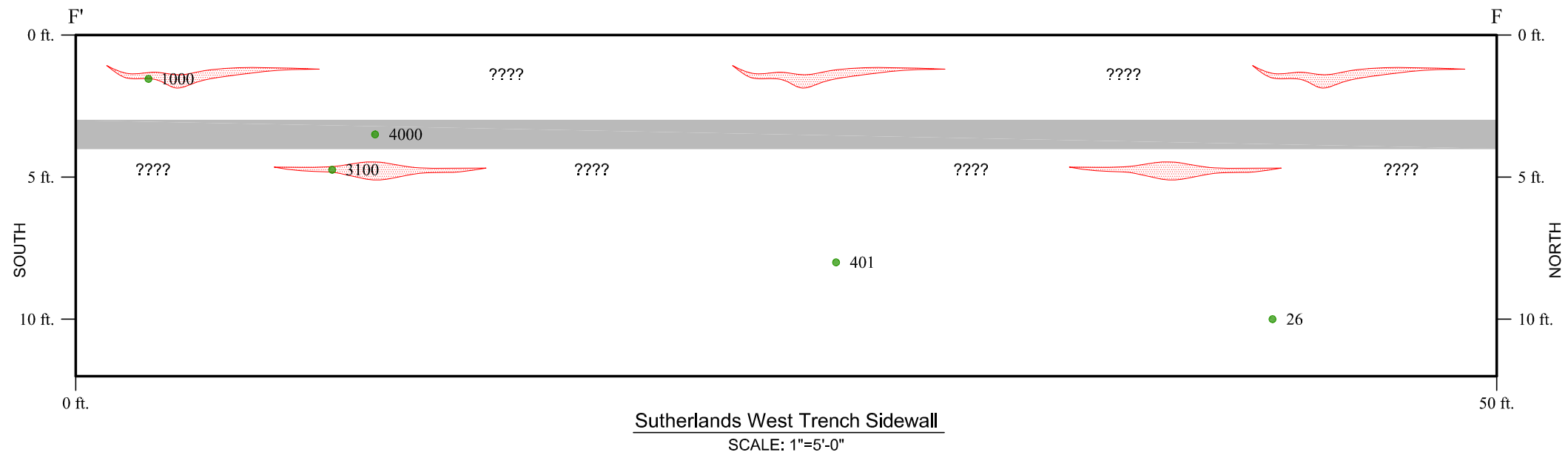
NORTH TRENCH SIDEWALL RESIDUAL ARSENIC - SUTHERLANDS AREA ARMOUR ROAD 2251 N. ARMOUR ROAD, NORTH KANSAS CITY, MO RIO TINTO LEGACY MANAGEMENT	
By: MGC	Project No.: 8275000264
Date: 2/8/2017	



amec
foster
wheeler

Figure
3-19

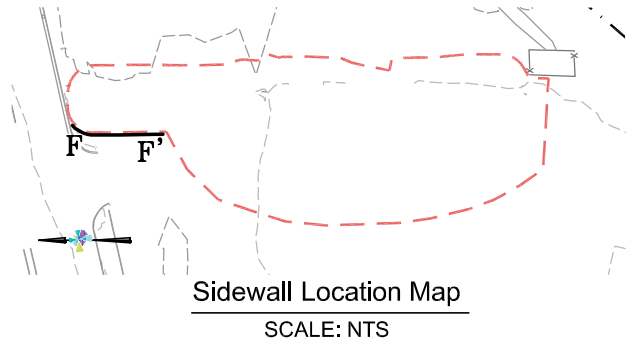
Plot Date: 04/04/17 - 1:24pm, Plotted by: mark.crater
Drawing Path: L:\PUBL\ICP_Drive\3282 Project files- Environmental Group\Armour Road Site\9.0 CADD\9.2 Figures\ Drawing Name: Sutherlands Excavation Sidewall Sections.dwg



1. SOME ARSENIC FILAMENTS AND BLACK CHAR IN THIS AREA WERE VISUALLY OBSERVED DURING EXCAVATION ACTIVITY. BASED ON TRF RESULTS AT NEARBY LOCATIONS AND AT THE SAME DEPTH, ARSENIC CONCENTRATIONS RANGING FROM APPROXIMATELY 900 TO 4,000 ppm SHOULD BE EXPECTED IN SOIL FROM ONE FOOT TO AT LEAST FIVE FEET BELOW GROUND SURFACE.

LEGEND:

- 32 XRF SAMPLE LOCATIONS
- ~ APPROXIMATE EXTENT OF THE REMAINING ARSENIC FILAMENTS IN SOIL
- APPROXIMATE LOCATION OF BLACK CHAR
- APPROXIMATE EXCAVATION BOUNDARY



WEST TRENCH SIDEWALL RESIDUAL
ARSENIC - SUTHERLANDS AREA
ARMOUR ROAD
2251 N. ARMOUR ROAD, NORTH
KANSAS CITY, MO
RIO TINTO LEGACY MANAGEMENT

By: MGC	Project No.: 8275000264
Date: 2/8/2017	



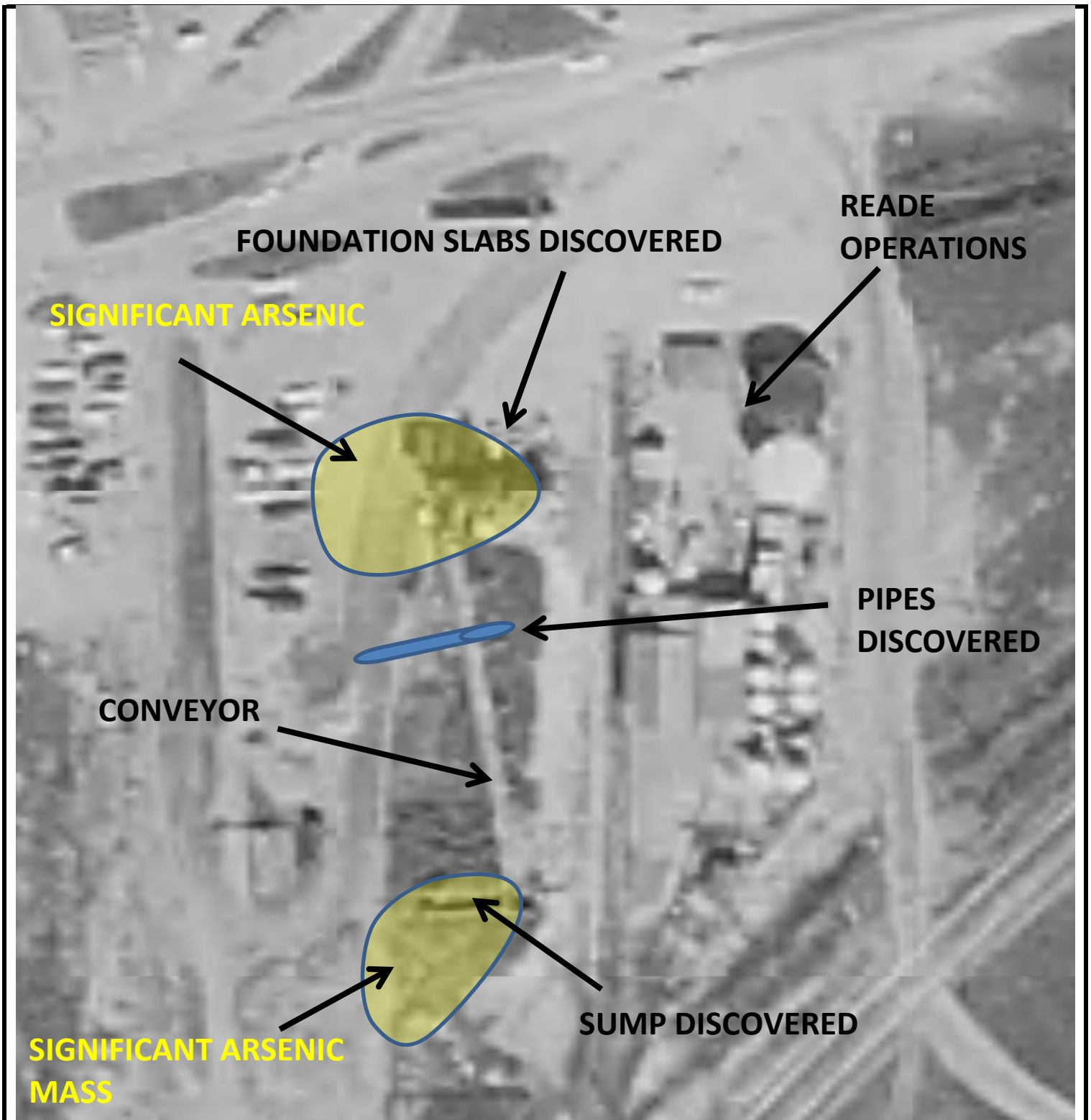


Figure 3-21 AERIAL PHOTO 1969

2251 ARMOUR ROAD
NORTH KANSAS CITY, MISSOURI

**RIO TINTO
LEGACY
MANAGEMENT**

Rio Tinto Legacy
Management
4700 Daybreak Parkway
South Jordan, Utah 84095

DATE: 2/20/2017

DRAWN BY: RVO

CHECKED BY: GP

FILE NO:

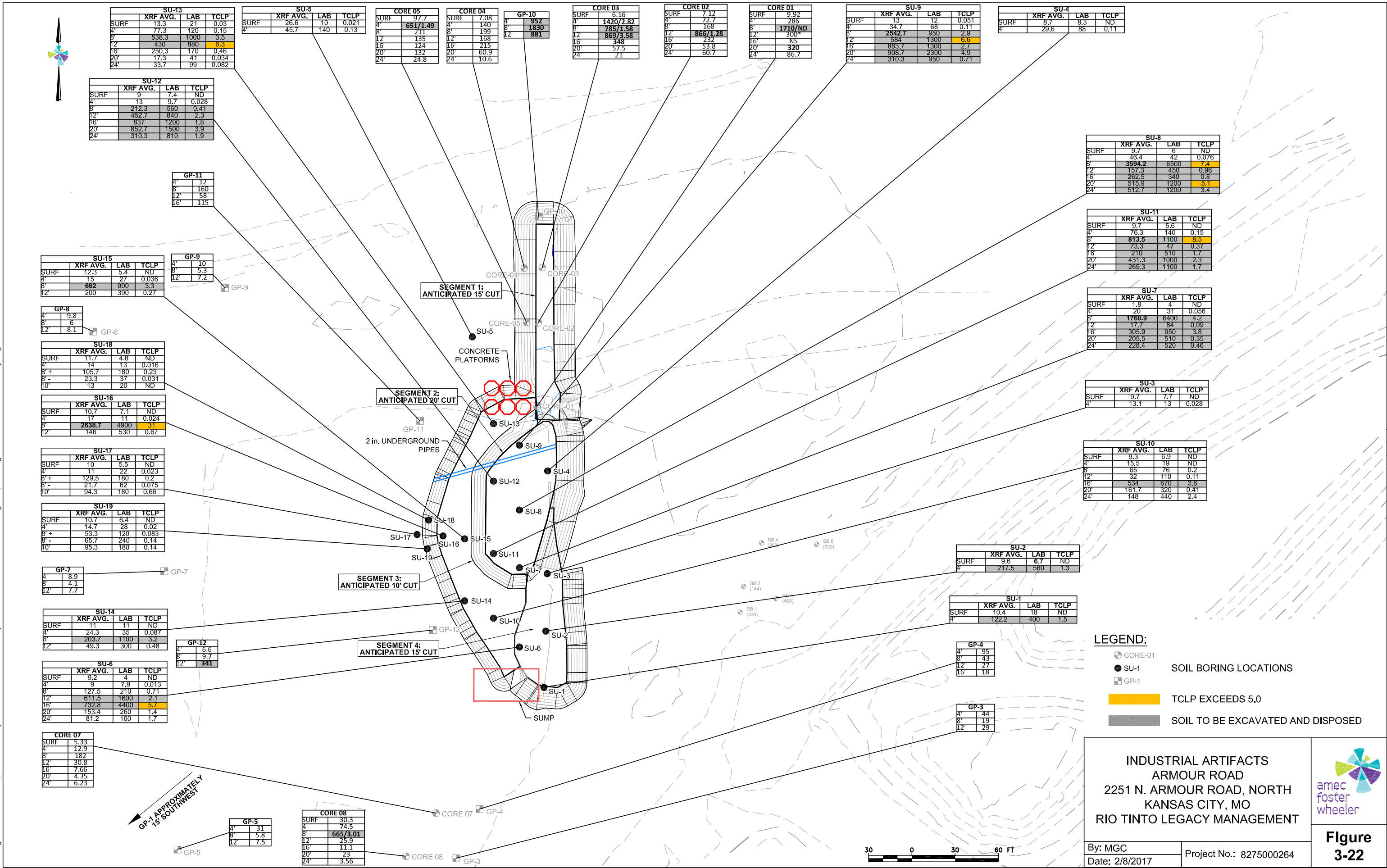
JOB NUMBER:

SCALE: Not to Scale

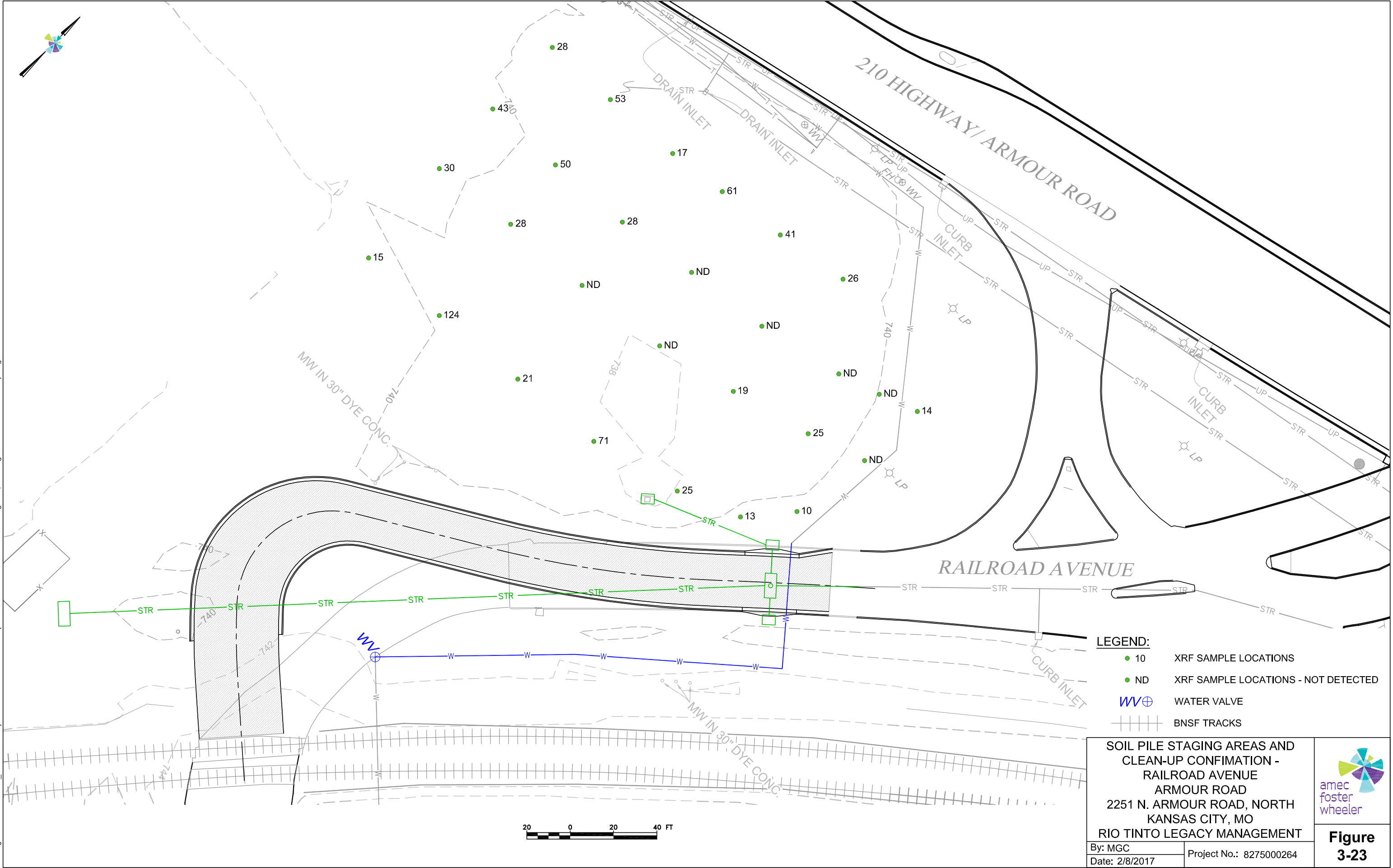
FIGURE NO:

SHEET 1 OF 1

Plot Date: 04/04/17 - 1:43pm, Plotted by: mark.crater
Drawing Path: L:\PUBL\ICIP_Drive\3282 Project files- Environmental Group\Armour Road Site\9.0 CADD\9.2 Figures\ Drawing Name: Sutherlands Soil Study.dwg



Plot Date: 04/05/17 - 9:11am, Plotted by: mark.crater
Drawing Path: L:\PUBLIC\IP Drive\3282 Project files- Environmental Group\Armour Road Site\9.0 CADD\9.2 Figures\ Drawing Name: Railroad Clean Up.dwg





Plot Date: 04/05/17 - 9:14am, Plotted by: mark.crater
Drawing Path: L:\PUBL\ICP_Drive\3282 Project files- Environmental Group\Armour Road Site\9.0 CADD\9.2 Figures\ Drawing Name: Final Site Plan.dwg

